

PALEYINA, V.A.; KOKUNA, Ye.I.; ALEKSEYEV, Ye.S., redaktor; SHILINA, Ye.I.,  
tekhnicheskiy redaktor

[Embroidery manual] Posobie po vyshivke. Moskva, Gos. izd-vo  
"Iskusstvo," 1954. 60 p.  
(Mir 7:10)  
(Embroidery)

FALEYEVA, V.L., kand.med.nauk

Treatment of pharyngomycosis with a 10% alcohol solution of gentian violet combined with curettage. Zhur. ush., nos. i gorl. bol. 20 no.1:77-78 Ja-F '60. (MIRA 14:5)

1. Otorinolaringologicheskoye otdeleniye Poltavskoy gorodskoy bol'nitsy.  
(PHARYNX--DISEASES) (GENTIAN VIOLET)

FALEYEVA, V.L., kand.med.nauk (Poltava)

Results of training personnel at the base of the otolaringological department of the Poltava Regional Hospital. Zhur.ush., nos.i gor. bol.22 no.6:58-59 N-D'62. (MIRA 16:7)  
(POLTAVA--OTOLARINGOLOGY--STUDY AND TEACHING)

YUNGER, S.V.; MEL'NIKOV, M.P.; LOGVINOV, V.I.; Prinimali uchastiye: FALEYEVA, V.V.;  
YUDINA, L.V.

Effect of prolonged heating at 350°- 600° on the resilience of  
austenite-ferrite welds. Avtom. svar. 14 no.6:14-20 Je '61.

1. Stalingradskiy nauchno-issledovatel'skiy institut tekhnologii  
mashinostroyeniya. (MIRA 14:5)

(Steel-Welding)  
(Metals, Effect of temperature on)

KAL'M, Iavel Alekseyevich, kand. sel'khoz. nauk; GOL'YKOV, F.S.,  
red.; FALEYEVA, Ye.G., red.

[Manual for agricultural norms in the northwestern zone of  
the R.S.F.S.R.] Spravochnik normativov dlia sel'skogo kho-  
ziaistva severo-zapadnoi zony RSFSR. Leningrad, Izd-vo  
"Kolos," 1964. 439 p. (MIRA 17:8)

Faleeva, Z. N.

USSR / Human and Animal Physiology. Blood.

T

Abs Jour: Ref Zhur-Biol., No 9, 1958, 41146.

Author : Faleeva, Z. N.

Inst : AS USSR

Title : The Effect of Roentgen Radiation on the Cellular Elements of the Blood in Mice During Administration of Protective Agents.

Orig Pub: Dokl. AN SSSR, 1956, 111, No 5, 1007-1010.

Abstract: Seventy-two mice were irradiated with 1,000 r under usual conditions and under the effect of protective agents (PA), 96 mice with 700 r and 71 mice with 1000 r in an atmosphere containing 0.25% CO and 16 mice with 700 r followed by intravenous in-

Card 1/4

*Inst. Animal Morphology, Seversk  
A.S. USSR.*

USSR / Human and Animal Physiology. Blood

T

Abs Jour: Ref Zhur-Biol., No 9, 1958, 41146.

**Abstract:** Injection of an emulsion of bone marrow of normal mice on the second day, following irradiation. A dose of 700 r without application of PA was followed, within 4 hours, by a decrease of leucocytes (L) from 7,125 in  $\text{mm}^3$  (normal- 11,125) and within 24 hours- 1,450. The majority of the mice died within 7 days following irradiation. The leucocyte count in mice surviving 15 days increased and approached normal values on the 45th day. The leucocyte decrease was mainly at the expense of lymphocytes. The number of neutrophiles increased during the first hours and only decreased significantly after several days. The L value was more intensively restored in the neutrophile series than in the lymphocyte series. The number of erythrocytes (E) decreased for 6-15 days, and approached normal

Card 2/4

42

USSR / Human and Animal Physiology. Blood.

T

Abs Jour: Ref Zhur-Biol., No 9, 1958, 41146.

**Abstract:** values within 20 days. One thousand r doses produced similar changes. At the time of the animal's death, on the 4th day, the value of L was only  $181/\text{mm}^3$ . The number of E changed insignificantly. With both doses there was an increase of the number of L with degenerative changes which reached the maximum during the period of the most intensive restoration of the L value. A dose of 700 r, administered in an atmosphere containing CO, failed to produce significant changes when compared with controls. The leucocyte count failed to decrease within 4 hours and later the curve of the changes of L values were similar to that in the controls.

Card 3/4

USSR / Human and Animal Physiology. Blood,

T

Abs Jour: Ref Zhur-Biol., No 9, 1958, 41146.

**Abstract:** A dose of 1000 r was followed by changes similar to those in control mice. A large number of mice survived in an atmosphere containing an addition of CO; the blood picture was rapidly restored at the end of 16 days. The E count steadily decreased for 7-26 days. The L count decreased to the same values as in controls for 3-4 days following injection of an emulsion of bone marrow, but the restoration began sooner and had a similar course as that which occurred during the protective action CO. The degenerative changes in the blood cells were less intense with administration of PA. --  
A. D. Beloborodova.

Card 4/4

43

Paleyeva, Z. N.

AUTHOR: Paleyeva, Z. N. 20-5-18/48

TITLE: Dynamics of the Cellular Elements of Peripheral Blood  
of Mice When Influenced by X-Rays Under Conditions of  
Shielding of an Extremity and of its Local Exposure (Dinamika  
kletochnykh elementov perifericheskoy krovi myshey pri  
deystvii rentgenovskikh luchey v usloviyakh ekranirovaniya  
konechnosti i lokal'nogo yeye oblucheniya).

PERIODICAL: Doklady AN SSSR, 1957, Vol.116, Nr 5, pp. 784-787 (USSR)

ABSTRACT: First the author refers to some respective works already published. The present works studies the composition of blood, the number of cells contained therein and the viability of animals in the case of total irradiation with shielding of one hind extremity and with the local exposure of such an extremity. Full-grown white mice of from 18 -20 g served as objects for this experiment. The screening was carried out with a 3mm thick lead screen. The animals were once irradiated with a total dosage of 700 r; the conditions of irradiation are mentioned. The blood serving for the investigation was taken from the tail vessels during one month. The experiments are shortly described. The peripheral

Card 1/3

Dynamics of the Cellular Elements of Peripheral Blood      20-5-18/48  
of Mice When Influenced by X-Rays Under Conditions of Shielding  
of an Extremity and of its Local Exposure.

blood was investigated 4 hours, 1,2,3,5,6,8,12,13,15,16,20, 21,25, and 30 days after the irradiation. When one hind leg was screened the number of erythrocytes decreased a little 4 hours after the irradiation, increased after this to the usual level beginning with the first day and then stayed at an almost normal level. The number of leucocytes increased only for a short time 4 hours after the irradiation, decreased already one day after the irradiation and reached a minimum after three days. The processes of regeneration in white blood begin after about 10 days but the normal number of form elements is reached again only after 30 days. The important increase of leucocytes depends only on the neutrophiles (neutrophil). The comparison of the results obtained with one screened hind extremity with the results of total exposure shows the following: The screening of part of the marrow does not markedly increase the regeneration of lymphocytic cells but at the same time noticeably accelerates the regeneration of granulocytic forms. With one extremity screened a clear trend to regeneration is noticed after 10 days. The leucocytes increase in case of

Card 2/3

Dynamics of the Cellular Elements of Peripheral Blood  
of Mice When Influenced by X-Rays Under Conditions of an  
Extremity and of its Local Exposure.

20-5-18/48

screening one extremity almost as quick as after total irradiation. Pathologic forms can obviously be found more often in the case of total irradiation than after local screening. With total irradiation 6,6 % of the mice remained alive (mean life of deceased animals was 9,7 days) but in the case of the irradiation with one extremity being screened this figure was 46,6 % (mean life of deceased animals was 10,86 days). The local irradiation of an extremity does not cause any specific change in the "picture" of peripheral blood. There are 2 figures, 3 tables, and 13 references, 3 of which are Slavic.

ASSOCIATION: Institute for Animal Morphology im.A.N.Severtsov. AN.USSR  
(Institut morfologii zhivotnykh im. A. N. Severtsova Akademii nauk SSSR).

PRESENTED: May 30, 1957, by L. A. Shtern, Academician

SUBMITTED: May 25, 1957.

AVAILABLE: Library of Congress

Card 3/3

FALEYEVA, Z.N., Cand Biol Sci--(diss) "Changes in the peripheral blood under the effect of ionizing radiation under various experimental conditions." Moscow, 1958. 21 pp, (Acad Sci USSR. Inst. of <sup>ing</sup> *Zoometra*, Morphology im A.N.Severtsov), 100 copies. (KL, 38-58, 105).

18

21(3)

SOV/20-122-1-17/44

AUTHOR:

Faleyava, Z. N.

TITLE:

The Variation of the Picture of the Peripheral Blood of  
Mice by a Total Irradiation With Shielding of the Spleen  
and by a Local Irradiation of the Spleen (Izmeneniye kartiny  
perifericheskoy krovi myshey pri obshchem obluchenii s  
ekranirovaniyem selezenki i pri lokal'nom obluchenii selezenki)

PERIODICAL:

Doklady Akademii nauk SSSR, 1958, Vol 122, Nr 1, pp 65-68  
(USSR)

ABSTRACT:

This paper deals with the problem as to whether the shielding of the spleen has a protective influence and how this protection is shown in the picture of the peripheral blood. The experiments were carried out on grown-up white mice (18 - 20 g weight). The variations of their peripheral blood were investigated under the following conditions: 1) single total irradiation by X-rays (dosis 700 r) with shielding (3 mm of lead) of the chirurgically separated spleen; 2) by local irradiation (also 700 r) of the spleen which was taken from the mouse body. The observations were carried out a month after irradiation. The blood in these investi-

Card 1/3

SOV/zo-122-1-17/44

The Variation of the Picture of the Peripheral Blood of Mice by a Total Irradiation With Shielding of the Spleen and by a Local Irradiation of the Spleen

gations was taken from the tail of the animals 4 hours and 1, 2, 3, 5, 7, 10, 12, 15, 20, 25, and 30 days after the irradiations. The processing of the experimental data is discussed in short. In the animals with shielded spleen, the quantity of the leucocytes decreased to 7500 four hours after irradiation. In the following, this number decreased monotonously, and after 3 - 5 days it reached the minimum value (1300 - 1400 cells per 1 mm<sup>3</sup> of blood). Starting from the 7<sup>th</sup> - 10<sup>th</sup> day the normal quantity of the leucocytes was restored and after 20 days there were more leucocytes than in the normal state. These variations of the total number of the leucocytes in the early stages of the observations were mainly determined by a variation of the quantity of the lymphocytes. The author then in detail describes the experimental results. According to these results, the peripheral blood reacts differently to a total irradiation of the animal body with shielding of the spleen than to a local irradiation of the spleen. In the first case, there is a relatively long leucopenia (*leykopeniya*) which is followed by a restoring of the leucocytes. In the second case, a

Card 2/3

SOV/2o-122-1-17/44

The Variation of the Picture of the Peripheral Blood of Mice by a Total Irradiation With Shielding of the Spleen and by a Local Irradiation of the Spleen

chronic leucocytosis occurs after an extremely short leucopenia. The shielding of the spleen does not prevent the development of the reaction of the blood which is specific for the total irradiation. In the second case, however, the restoring processes begin earlier and they proceed more rapidly than in totally irradiated animals where the spleen was not shielded. There are 2 figures, 5 tables, and 18 references, 3 of which are Soviet.

ASSOCIATION: Institut morfologii zhivotnykh im. A. N. Severtsova Akademii nauk SSSR (Institute of the Morphology of Animals imeni A. N. Severtsov, AS USSR)

PRESENTED: April 22, 1958, by I. I. Shmal'gauzen, Academician

SUBMITTED: April 18, 1958

Card 3/3

FALEYEVA, Z.N.

Some data on the effect of screening and local X irradiation  
of intestines on peripheral blood in mice. Zhur. ob. biol. 20  
no.3:239-243 My-Je '59.  
(MIRA 12:8)

1. Institute of Animal Morphology, Academy of Sciences of  
the U.S.S.R.  
(X RAYS--PHYSIOLOGICAL EFFECT) (INTESTINES) (BLOOD)

FALEYEVA, Z.N.

Relation of the beginning of hibernation to the level of fat reserves and the state of the central nervous system in *Citellus suslicus* Güld. *Zool. zhur.* 38 no.2:268-272 F '59.  
(MIRA 12:3)

1. Institute of Animal Morphology, Academy of Sciences of the U.S.S.R.  
Moscow.  
(Susuks) (Hibernation)

FALEYEVA, Z.N.

Influence of X-rays on the peripheral blood of white  
mice. Trudy Inst.morf.shiv. no.24:74-96 '59.  
(MIRA 13:3)  
(X RAYS--PHYSIOLOGICAL EFFECT) (BLOOD)

FALYEVA, Z. J. kand. biolog. nauk

Overhaul of the human body. Izobr. i rats. no. 3:38-41 Mr '60.  
(MIRA 13:6)

(MEDICAL RESEARCH)

IVANITSKAYA, A.F.; FALEYEVA, Z.N.

Effect of gamma rays of Co<sup>60</sup> on explanted connective tissues  
of the chick embryo. Dokl.AN SSSR 133 no.3:709-712 Jl '60.  
(MIRA 13:7)

1. Institut morfologii zhivotnykh imeni A.N.Severtsova  
Akademii nauk SSSR. Predstavлено академиком I.I.Shmal'-  
gaurenom.  
(GAMMA RAYS--PHYSIOLOGICAL EFFECT)  
(CONNECTIVE TISSUES)

27.1220 4012

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B103/B217

AUTHORS: Ivanitskaya, A. F. and Faleyeva, Z. N.

TITLE: Effect of the gamma rays of Co<sup>60</sup> on the intestinal epithelium  
of fowl embryo in a tissue culture

PERIODICAL: Doklady Akademii nauk SSSR, v. 137, no. 6, 1961, 1456-1459

TEXT: The authors clarify in their study the behavior of the intestinal epithelium of fowl embryos in tissue cultures when irradiated with high doses of gamma rays of Co<sup>60</sup>. 7-8 days old embryos were used for this purpose in order to eliminate the intestinal flora. The tissue was cultivated according to the method of the hanging drop without passages. Fowl plasma and fowl embryonic extract (1 : 1) served as culture medium. The epithelial growth according to the membrane type was used as criterion of the cell reactivation. The membranes were measured planimetrically (method of Ibling, not explained in the text) and the cytological characteristics of the membrane forming cells studied. The mitoses were rare and could not be used as criterion. Finished cultures were irradiated with doses of from 100 up to 200,000 r (intensity of the dosis 96-590 r/min) in the apparatus ГУБ-800

Card 1/3

23858

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Effect of the gamma ...

S/020/61/137/006/020/020  
B103/B217

(GUBE-800) (Ref. 5)-24 hours after their preparation. The authors analyzed live cultures on a heatable microscope table as well as fixed and colored cultures. The liquid San-Felice according to prescription by P. I. Zhivago was used for fixing. Fixation was carried out after 24 and 48 hr. The authors established that irradiation with 100 r inhibits to a certain extent membrane growth without causing any changes. Doses of 1000 and 5000 r considerably inhibit membrane growth, lead to premature fat formation in the cytoplasm and to the appearance of large quantities (14.4%) of very large cell nuclei. Cell division is not suppressed. Doses of 50,000 and 75,000 r destroy the membranes already during irradiation, often causing proliferation of the connective tissue. The membranes do not decompose, however, in all cultures, and they are partly liquefied where they are maintained. The amount of very large cell nuclei reaches 21.05%. Also the nucleoli are enlarged, crushed, and often of bizarre forms. Mitoses never take place here. Thus the cultures are destroyed by these doses without any sign of reconstruction. Doses of 100,000 and 200,000 r destroyed the grown membrane to 100%. The few surviving cells had vesicularly swelled nuclei, were not connected with the adjacent cells and were seriously impaired. The authors finally state that 1) all doses (except 100 r) caused a polymorphism of the

Card 2/3

23858

S/020/61/137/006/020/020  
B103/B217

Effect of the gamma ...

nuclei which was the stronger, the higher the used doses were. 2) Doses of 1000 r and more weakened the epithelial growth and the membranes were not uniform. They studied not irradiated epithelium and found that the membrane cells form pseudopodia, at the periphery, move on by means of them, thus expanding the membrane. The abovementioned liquefaction hinders this group movement, which leads to the nonuniformity of the membrane. In conclusion, the authors state that the effect of the used doses of irradiation on the explanted intestinal epithelium is similar to the effect on intermuscular connective tissue. There are 4 figures and 10 references: 2 Soviet-bloc and 8 non-Soviet-bloc. The only reference to English-language publication reads as follows: H. M. Patt, A. M. Brues, Ref. 3: Radiation Biol., 7, p. 2, ch. 15, 959, 1954.

ASSOCIATION: Institut morfologii zhivotnykh im. A. N. Severtsova Akademii nauk SSSR (Institute of Animal Morphology imeni A. N. Severtsov of the Academy of Sciences, USSR)

PRESENTED: September 26, 1960, by I. I. Shmal'gauzen, Academician

SUBMITTED: September 23, 1960

Card 3/3

FALEYEVA, Z.N.; SHAPIRO, I.M.

Lethal effect of chromosome balance disturbances on tumoral  
cells. Dokl. AN SSSR 159 no.5:1158-1160 D '64 (MIRA 18:1)

1. Institut morfologii zhivotnykh im. A.N. Severtsova AN SSSR.  
Predstavleno akademikom Yu.A. Orlovym.

L 54839-65

ACCESSION NR: AP5017924

UR/0020/64/159/005/1158/1160

12  
B

AUTHOR: Faleyeva, Z. N.; Shapiro, I. M.

TITLE: Lethal action of disturbances in the chromosome balance on tumor cells

SOURCE: AN SSSR. Doklady, v. 159, no. 5, 1964, 1158-1160

TOPIC TAGS: animal genetics, experiment animal, x ray irradiation, radiation biologic effect, cytology, radiotherapy, neoplasm

ABSTRACT: Mice were given intraperitoneal injections of various amounts of cells of Ehrlich's ascitic carcinoma in the  $3 \times 10^5$  -  $1 \times 10^6$  range after the cells had been irradiated with a dose of x-rays large enough to produce chromosome aberrations in all but 1,000 cells. The rate of survival of mice 6 months, after the injection was the same in every instance - i.e., only cells without chromosome aberrations were viable and effective in producing the tumor. After mice had been injected with various amounts of Ehrlich's ascitic carcinoma cells taken from mice that had been infected with this tumor and then irradiated with x-rays in a dose of 2,020 r, the development

Card 1/2

L 54839-55  
ACCESSION NR: AP5017924

of the tumor within the next 15 days was delayed as compared with that in control mice injected with an equivalent number of intact carcinoma cells without chromosome aberrations. The delay in the development of the tumors was due to an inhibition in the division of intact cells and possibly also to an effect of cells killed by radiation on the intact cells. The results obtained confirmed the correctness of the hypothesis in regard to the lethal effect on tumor cells of disturbances in the chromosome balance and indicated that the percentage of tumor cells with chromosome aberrations may serve as a convenient criterion of effectiveness in the development of methods for the radiation therapy of tumors.

Orig. art. has: 1 graph, 1 table.

ASSOCIATION: Institut morfologii zhivotnykh im. A. N. Severtsova Akademii nauk SSSR (Institute of Animal Morphology, Academy of Sciences SSSR)

SUBMITTED: 06Apr64

ENCL: 00

SUB CODE: LS, NP

NR REF Sov: 001  
Cardl 2/2

OTHER: 010

JPRS

~~#4114454~~ FALICHEVA, A-I.

cc

USSR.

5174 Mechanism of Electroposposition of Chromium. A.  
I. Levin, A. I. Falicheva, E. A. Ukshe, and N. S. Brylina.  
Henry Bratcher Translation no. 3315, 8 p. (From Doklady  
Archiv fur Metallkunde, v. 2, no. 4, 1948, p. 110-120.)  
Henry Bratcher, Altadena, Calif.

Previously abstracted from original. See item 11082, v. 3,  
Aug. 1954.

11 B2

FALICHEVA, A. I.

USSR/Chemistry - Physical chemistry

Card 1/1 Pub. 147 - 15/27

Authors : Levin, A. I., and Falicheva, A. I.

Title : Mechanism of electrodeposition of chromium

Periodical : Zhur. fiz. khim. 28/9, 1652-1661, Sep 1954

Abstract : Various literature data regarding the mechanism of Cr electrodeposition were analyzed. Study of the electrolysis of chromic anhydride solutions showed sharp current drops on Pt-, Ag-, Cu-, Fe-cathodes which, as a rule, are close to the zero-charge potentials for above mentioned metals. No current drops were revealed in the case of Ni-, Cr-, Cd-, Zn-cathodes. This phenomenon is explained by the possibility of direct reduction of chromate ( $\text{CrO}_4^{2-}$ ) or bi-chromate ( $\text{Cr}_2\text{O}_7^{2-}$ ) anions on the cathode. The effect of the electrode surface charge on the kinetics of electrode reactions is explained. Thirty-two references: 20-USSR; 7-German; 4-USA and 1-English (1854-1954). Graphs; drawing.

Institution : The S. M. Kirov Ural Polytechnicum, Sverdlovsk

Submitted : January 19, 1954

FALICHEVA, A.I.

"The Mechanism of Electrodeposition of Chromium. A. I. Levin, A. I. Falichera, E. A. Utkina, and N. N. Brylina  
(Dokl. Akad. Nauk SSSR, 1954, 98, (1), 103-109).—[In  
Russian]. The relation between the current and potential  
during electrolytic reduction of chromate ions was studied at  
20° C., using Pt, Cr, Ni, Ag, Cu, and Zn electrodes. The  
experiments conducted in aq. CrO<sub>4</sub> soln., with or without addn.  
of SrCO<sub>3</sub>, showed that the electrodeposition of Cr on various  
metals took place as a result of direct reduction of Cr-contg.  
anions.—S. K. L."

Ural Polytech Inst. Knov

M

FALICHEVA, A.I.

USSR/ Chemistry - Galvanization

Card 1/2

Pub. 147 - 12/26

Authors

Lévin, A. I. and Falicheva, A. I.

Title

Study of cathode processes during galvanic chrome plating

Periodical

Zhur. fiz. khim. 29/1, 95-104, Jan 1955

Abstract

Investigation was conducted to observe the electrode polarization during chromium electrodeposition and to establish its relationship to various electrolysis factors (temperature, concentration, solution circulation, etc.) The Cr potentials were measured in the absence of the current and it was found that the equilibrium potentials of Cr are highly unstable and depend upon the material, the characteristics of the electro surface and the adsorption processes occurring at the time.

Institution

The S. M. Kirov Ural Polytechnicum, Sverdlovsk

Submitted

April 29, 1954

Periodical : Zhur. fiz. khim. 29/1, 95-104, Jan 1955

Card 2/2 Pub. 147 - 12/26

Abstract : It was established that the polarization during the reduction of chromate ions on the cathode cannot be explained by concentration difficulties but rather by the chemical nature of the substance. Seventeen references: 2 USA; 13 USSR; and 2 German (1920-1954). Diagrams

Falicheva, A.T.

Concentration changes in the preelectrode layer of a chromium bath and the mechanism of electrodeposition of chromium. A. I. Levin and A. I. Falicheva. *Zhur Priklad. Khim.* 29, 1673-84 (1955). The changes in the pH, the content, and ionic compn. in the preelectrode layer of a Cr electrolytic cell was destd. by different independent methods. (a) The pH was measured with a glass electrode during the electrolysis of solns. contg. from 10 to 100 g.  $\text{CrO}_4^{2-}$ /l. over a c.d. range of 5-20 amp./sq. dm., in a cell with a porous diaphragm sepg. the catholyte from anolyte. The dark-violet deposit formed at a pH 5.3 consisted of hydrates and basic salts of  $\text{CrO}_4^{2-}$ ; it did not contain

$\text{SO}_4^{2-}$ ,  $\text{CrO}_4^{2-}$ , and  $\text{Cr}_2\text{O}_7^{2-}$ . During the electrolysis of a soln. of 60 g.  $\text{CrO}_4^{2-}$ /l. in 1%  $\text{H}_2\text{SO}_4$  with a c.d. of 5 amp./sq. dm., the pH of the precathodic layer rose to 2.4, and in solns. contg. 100 g.  $\text{CrO}_4^{2-}$ /l. in 1%  $\text{H}_2\text{SO}_4$  to 1.8. With a c.d. of 20 amp./sq. dm. metallic Cr was deposited and the pH rose to 4.2 in the first soln. and 3.0 in the second. (b) The change in the ionic compn. in the catholyte during electrolysis was measured in a U-tube, with horizontal electrodes, so that the surge of H did not disturb the lower layer from which samples were taken. With a c.d. of 20 amp./sq. dm., Cr was deposited at a pH of 3.5 and the soln. contained  $\text{CrO}_4^{2-}$  and  $\text{Cr}_2\text{O}_7^{2-}$ ;  $\text{SO}_4^{2-}$  was not detected. At a pH 5.3 the cathode was coated with hydrates and basic salts passivating the cathode and preventing the deposition of Cr. (c) The pH of hydrate formation, destd. conductometrically, in a soln. contg.  $\text{CrO}_4^{2-}$  100 and  $\text{Cr}^{2+}$  9 g./l. without additives was 5.3 and with additives were as follows: with 2 g.  $\text{H}_2\text{SO}_4$ /l. 5.5; with 10 g.  $\text{Cu}^{2+}$ /l. 5.0; with 10 g.  $\text{Ni}^{2+}$ /l. 5.3; with 5 g.(?)  $\text{Al}_2\text{O}_3$ /l. 4.5; and with 10 g.

1. Уральский политехнический инст.  
inv. S. M. Krasava

Fe<sup>++</sup>/I<sub>2</sub> 2.8. (d) Concent. and ionic changes in the pre-electrolytic region was detd. by Hittorf's method in electrolyte concn. CrO<sub>4</sub> 108, H<sub>2</sub>SO<sub>4</sub> 1.03, Cr<sup>+++</sup> 0.84 g./l. and CrO<sub>4</sub> 215, H<sub>2</sub>SO<sub>4</sub> 2.15, Cr<sup>+++</sup> 1.2 g./l. The electrolysis continued for 4 hrs. with a c.d. of 20 amp./sq. dm. The concn. of Cr<sup>++</sup>, H<sup>+</sup>, and SO<sub>4</sub><sup>--</sup> decreased and that of Cr<sup>+++</sup> increased. In the anolyte the concn. of Cr<sup>++</sup> remained unchanged, Cr<sup>+++</sup> was not present, and SO<sub>4</sub><sup>--</sup> increased slightly. The concn. changes of these expts. agreed with the results of Hackerman, et al. (C.A. 47, 7288). On the basis of these results the following reactions are postulated to correspond to the 3 branches of the E-i polarization curve (cf. C.A. 49, 8007): 1st branch, Me(CrO<sub>4</sub><sup>--</sup>)<sub>n</sub> + 14H<sup>+</sup> + 6e → Cr<sup>+++</sup> + 7H<sub>2</sub>O (1); 2nd branch, 2H<sup>+</sup> + 2e → H<sub>2</sub> (2) and reaction (1); 3rd branch, Me(CrO<sub>4</sub><sup>--</sup>)<sub>n</sub> + 14H<sub>2</sub>O + 6e → Cr + 8OH<sup>-</sup> and reactions (1) and (2).

O. Bencowitz

2/2

137-58-6-12949

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 6, p 252 (USSR)

AUTHORS: Levin, A.I., Falicheva, A.I.

TITLE: Concentration Changes in Applied Layers of Chrome Bath and the Mechanism of Electrolytic Deposition of Chromium (Kon-tsentratsionnyye izmeneniya v prikladnykh sloyakh khromovoy vanny i mekhanizm elektroosazhdeleniya khroma)

PERIODICAL: V sb.: Teoriya i praktika elektrolit. khromirovaniya. Moscow, AN SSSR, 1957, pp 44-60 (This collection contains 16 rpts and texts of discussions presented before March '55 Conf. on Theory and Practice of Chromium Plating)

ABSTRACT: A study was performed of the pH and of the composition of a chrome electrolyte without current and during the process of electrolysis. Measurements were taken by three independent methods: a) electrometrically, by means of a glass electrode; b) by potentiometric titration, for determining the pH of hydrate formation; c) chromatographically, with the use of indicators. It is shown that electrolytic deposition of Cr is in many ways similar to deposition of metal from compound complex electrolytes, where the ion composition of the electrolyte undergoes noticeable variations depending upon the conditions and changes of concentration prevailing in the electrolyte. It is

Card 1/2

137-58-6-12949

\* Concentration Changes in Applied (cont.)

established that the pH of the space near the cathode in the chromium bath changes from 0.08 to 6 depending upon the initial concentration and the cd. The point of hydration of  $\text{Cr(OH)}_3$  is near pH 5.3. Admixtures of some metals (Fe, Al) lower the pH of the beginning of formation of the solid phase and form compounds the solubility of which is less than that of  $\text{Cr(OH)}_3$ . Organic impurities lower the pH of formation of  $\text{Cr(OH)}_3$  while there is an increase of concentration of  $\text{Cr}^{3+}$ . It is shown that of the three possible ions on the first and second branches of the polarization curve the process of reduction of  $\text{Cr}_2\text{O}_7^{2-}$  predominates.  $\text{CrO}_4^{2-}$  is directly reduced to metal. A mechanism explaining the effect of  $\text{SO}_4^{2-}$  on the process of electrolytic deposition of Cr is proposed. Bibliography: 23 references. Ref. also RzhMet, 1957, Nr 6, abstract 10533.

L.A.

1. Chromium--Electrodeposition    2. Electrolytes--Properties    3. Electrolytes  
--Electrical factors    4. Hydrogen ion concentration analysis

Card 2/2

137-58-6-12948

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 6, p 252 (USSR)

AUTHORS: Falicheva, A.I., Levin, A.I.

TITLE: Electrolytic Chrome Plating in Cold Baths (Elektroliticheskoye khromirovaniye iz kholodnykh vann)

PERIODICAL: V sb.: Teoriya i praktika elektrolit. khromirovaniya. Moscow, AN SSSR, 1957, pp 194-203

ABSTRACT: Work was carried out with the object of determining optimal conditions for obtaining bright Cr coatings at room temperatures in the usual Cr baths. It is shown that for Cu, Ni, and brass parts high-quality Cr coatings may be produced at room temperatures. For low-profile parts the best results are obtained by using the following electrolyte:  $\text{CrO}_3$  100-150 g/liter;  $\text{H}_2\text{SO}_4$  2-3% (of  $\text{CrO}_3$  weight),  $\text{Cr}^{3+} \leq 3$  g/liter. For Cu and brass, a cathode cd of  $6-10 \text{ amp/dm}^2$ , and for Ni a cathode cd of between 10 and 15  $\text{amp/dm}^2$  achieves a rate of deposition of  $1\mu$  in 2.5 min. For shaped parts good deposits are obtained in a bath containing 250-300 g/liter of  $\text{CrO}_3$ , 2-3% (of  $\text{CrO}$  weight)

Card 1/2 of  $\text{H}_2\text{SO}_4$ , and  $\text{Cr}^{3+} \leq 3$  g/liter; the cathode cd should be

137-58-6-12948

Electrolytic Chrome Plating in Cold Baths

10-15 amp/dm<sup>2</sup> for Cu and 18-20 amp/dm<sup>2</sup> for Ni to achieve a rate of deposition of Cr of 1/ $\mu$  in 3.5 min. Cold chrome-plating baths have many advantages as compared to electrolytes working at an elevated temperature.

L.A.

1. Chromium plating--Processing    2. Electrolytes--Temperature factors    3. Electrolytes  
--Properties

Card 2/2

137-58-4-7865

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 4, p 214

AUTHORS: Falicheva, A. I., Levin, A. I.

TITLE: Chromium Electroplating from Cold Baths (Gal'vanicheskoye khromirovaniye iz kholodnykh vann)

PERIODICAL: Tr. Ural'skogo politekhn. in-ta, 1957, Nr 69, pp 50-64

ABSTRACT: Tests were made of electrolytes (E) containing 75, 100, 150, 200, and 300 g CrO<sub>3</sub> per liter, with H<sub>2</sub>SO<sub>4</sub> added in an amount of 1 to 5% of the weight of the CrO<sub>3</sub> and a temperature of 20° ± 2°C, although on occasion, when D<sub>k</sub> was high, the temperature was 24-25°C. The volumetric D<sub>k</sub> was 2-3.5 amp per liter of electrolyte. It was found that good Cr platings are produced on Cu with D<sub>k</sub> of 4 to 100 amps/dm<sup>2</sup> at all the CrO<sub>3</sub> strengths indicated above and with an H<sub>2</sub>SO<sub>4</sub> content of from 1 to 3%. The brightest coatings were produced in E having the lowest CrO<sub>3</sub> concentrations. Cr current efficiency in cold baths was higher than in hot baths. Current efficiency diminished somewhat as the H<sub>2</sub>SO<sub>4</sub> content was raised with constant D<sub>k</sub> and CrO<sub>3</sub> content. The Cr brightness diminished when Cr<sup>3+</sup> > 4 g/liter. An increase in H<sub>2</sub>SO<sub>4</sub> content (up to 3%) improves the brightness of the deposits

Card 1/2

137-58-4-7865

**Chromium Electroplating from Cold Baths**

and reduces current efficiency. It was found that the amount of  $\text{Cr}^{3+}$  in the E is reduced with increase in plate surface. It was established that bright Cr deposits are produced in all the indicated E when chromium-plating is conducted for a long time, 60-90 min, when  $D_k$  is 4 to 10 amps/dm<sup>2</sup>. When the chromium-plating process continues for a longer time, the deposit at the cathode edges is gray. Precipitation of Cr on Ni required higher  $D_k$  than deposition on Cu, and the bond between the Cr and the Ni is weaker. A  $D_k$  of 20-25 amps/dm<sup>2</sup> and 48-50° temperature is required to produce bright Cr deposits on steel, while the  $D_k$  needed for deposition on Cu, brass, and Ni is 4 to 15 amps/dm<sup>2</sup> at room temperature. The highest quality bright coatings of Cr on Cu, brass, and Ni are produced in E containing 100-150 g CrO<sub>3</sub> per liter, 1 to 3% H<sub>2</sub>SO<sub>4</sub>, Cr<sup>3+</sup> < 3 g/liter, and Fe<sup>3+</sup> < 2 g/liter at  $D_k$  of 4-10 amps/dm<sup>2</sup>, 18-22°, and volumetric  $D_k$  < 0.5 amp/liter. Current efficiency 14-24%. Maximum thickness of Cr deposits 20 microns.

R.S.

1. Chromium plating

Card 2/2

25(1)	PAGE 7 BOOK EXTRACTIVE — 207/211
	Бюллетеній обладнання обробки металів та їхніх присадок.
	Випускається підпорядкованою і спільнотою польської металургії (Профспіль), Краків, 1959. 291 р.
	3,200 copies printed.
	Editorial Board: P. K. Laskow, F. I. Litvak, and A. P. Rybicki (Chair, M.). M. of Publishing House: M. S. Borodin; Chief Ed. (Southern Division, Books): V. K. Serdyuk, Bucharest.
	SOURCE: This book is intended for technical personnel in the field of protective coatings for vehicles.
	CONTENTS: The papers in this collection, presented at a conference of the IPO Bucharest in Odessa, deal with the mechanization and automation of metal-coating and plating processes performed by spraying, electrolytic, and electro-vacuum and plating methods. Qualitative control is also discussed. No generalities are mentioned. No references follow several of the papers.
	Table of Contents: Sabitchev, T. V., Engineer (Bucharest). Application of High-Molar Nickel Plating in Mass Production 37 Savchenko, A. I., Candidate of Chemical Sciences and G. S. Chernobravets. An Electrolyte for High-Molar Nickel Plating 45 Savchenko, A. I., Candidate of Chemical Sciences (Bucharest). Identification of the Nickel-plating Process Through the Use of a Fluorometric Electrolyte 49 Savchenko, G. S., Engineer (Bucharest). Effect of Processing Parameters on the Hardness of Electrolytic Deposits of Nickel 55 Orlovs'kii, E. N., Doctor of Chemical Sciences, and A. A. Shilovskova. Nickel Plating by Chemical-reduction Methods 61 Kostrom, A. R., Candidate of Technical Sciences (Kiev). Wear and Corrosion-resistant Coatings by Combination (Two-layer) Chrome Plating 69 Pashchenko, Shef, Candidate of Technical Sciences (Kiev). Chroming at Low Temperature 75 Goloborod'ko, B. Yu., and L. D. Bohdanev, Candidate of Technical Sciences (Kiev). Electrodeposition of Iron at High Current Densities from Low-concentration Sulphuric Acid Solutions 81 Kostrom, A. R., Engineer (Kiev). High-Molar Copper Plating from Acid Electrolytes 87 Pashchenko, B. Yu., Engineer (Dnepropetrovsk). Preparation of Aluminum Alloys 93 Goloborod'ko, B. Yu., Candidate of Technical Sciences and A. I. Lipin, Engineer (Dnepropetrovsk). Electroplating of Aluminum Alloys 97 Malyshev, Dr. Eng., Engineer (Dnepropetrovsk). Deep Anodizing of Aluminum Alloys With Automatic Regulation of the Process 103 Goloborod'ko, I. I., Engineer (Kiev). A Study of Processes of Depositing Anodized Coatings With High Electrical-insulating Properties on Aluminum and Its Alloys 119 Afanaseva, E. N., Engineer (Moscow). Deposition of Tinized Anodized Coatings on Aluminum and Some of Its Alloys 125 Babichukov, Ivan, F. G., Candidate of Technical Sciences (Kiev). Electrochemical Preparation of Zinc Coatings 131 Slobodchikov, M. M., Engineer (Obninsk). Electrolytic Polishing of Metal Parts and Wire Products 135 Slobodchikov, M. M., and A. I. Lipin. Electrolytic Deposition of the Lead-Zinc Smelting Alloy 139 Slobodchikov, M. M., Slobodchikov, and L. K. Gurvitch, Engineer (Kiev). Electroplating With a Lead-Zinc Alloy in a Macrocellular Solution 145 Levits, A. I., Doctor of Technical Sciences (Kiev). Mechanism of the Action of Surface-active Substances in Electrolytes 156 Levits, A. I., On the Mechanism of Electrodepositives of Metals Contained in Salts as Simple and Complex Salts 162 Bogdanov, T. M., Engineer (Bucharest). Palladium Coating of Precision-electrolytic Parts 172

AUTHORS: Falicheva, A.I., Levin, A.I. SOV/80-32-2-12/56

TITLE: On the Influence of Sulfate Ions on the Electric Precipitation of Chromium (O vliyanii sul'fatnykh ionov na elektroosazhdeniye khroma)

PERIODICAL: Zhurnal prikladnoy khimii, 1959, Vol XXXII, Nr 2, pp 308-312 (USSR)

ABSTRACT: Chromium can not be precipitated from solutions of chromium anhydride. Only a black sponge of hydroxides and basic chromium salts forms at the cathode. In the presence of anions, especially sulfate anions, chromium can be precipitated. These anions prevent the formation of a passivating film on the cathode so that the ions  $\text{Cr}_2\text{O}_7^{2-}$  and  $\text{CrO}_4^{2-}$  can be reduced. The sulfate ions  $\text{SO}_4^{2-}$  form very stable compounds with trivalent chromium. If the circuit is closed, a darkening of the electrolyte is observed at the cathode which moves gradually to the anode. In this dark part of the electrolyte ions of the type  $\left[\text{Cr}_2(\text{H}_2\text{O})_4(\text{SO}_4)_4\right]^{2-}$  are probably contained. A small excess of  $\text{Cr}^{3+}$  is useful for obtaining shining chromium coating, i.e. for the regulation of the crystal growth

Card 1/2

SOV/80-32-2-12/56

On the Influence of Sulfate Ions on the Electric Precipitation of Chromium

[Ref. 15]. The most efficient ratio for the chromium precipitation is  $\frac{\text{Cr}_2\text{O}_3}{\text{SO}_4^2-}$  - 1 : 2 to 2.5

There are 15 references, 9 of which are Soviet, 2 English, 2 American, and 2 German.

SUBMITTED: June 19, 1957

Card 2/2

FALICHEVA, A.I.; TSYFANOVA, R.I.

Anodic solution rate of nickel in nitric acid. Zhur. fiz. khim.  
35 no.2:350-354 F '61. (MIRA 16:7)

1. Ural'skiy politekhnicheskiy institut imeni S.M. Kirova,  
Sverdlovsk. (Nickel) (Nitric acid)

FALICHEVA, A.I.

Chromium plating from electrolytes containing trivalent  
chromium ions. Zhur. VKhG. no.5:555-557 '63.  
(MIRA 17:1)

L 17761-63  
ACCESSION NR: AP3006182

EWP(a)/EWI(a)/EDS

AFELC

J

8/0080/63/036/007/1511/1514

54

AUTHORS: Falicheva, A. I., Mikitin, V. D., Savinova, N. V.TITLE: An investigation of the conditions of galvanic chromium-plating from sulfuric acid electrolytes

f6

SOURCE: Zhurnal prikladnoy khimii, v. 36, no. 7, 1963, 1511-1514

TOPIC TAGS: Electrodeposition, chromium-plating, sulfuric acid electrolyte

ABSTRACT: Studies were made on the electrodeposition of chromium from acetate, oxalate, trilone, and ammonium chromate electrolytes containing its trivalent ion without the use of a diaphragm separating the catholyte from the anolyte; copper, brass, and steel (surface: 0.2 sq. decimeters) were used as cathodes. Lustrous chromium deposits 1-2 micra thick were obtained from all of these electrolytes, though only over very narrow ranges of cathode current density and temperature. Results were best with ammonium chromate electrolytes, at reduction temperatures of 30°C or less, and at a current density volume ( $D_{sub k}$ ) of no more than 3 A/liter. The composition and plating conditions of the 2 best electrolytes were as follows:

1/2

Card

L 17761-63	ACCESSION NR: AP3006182			
(1) Cr sub 2 (SO sub 4) sub 3 0.4-0.5 mol/liter, Na sub 2 SO sub 4 0.75-1 mol/liter, H sub 3 BO sub 3 0.5 mol/liter, NaF 0.2 mol/liter, glycerine 1-2 ml/liter, Fe sup 2+ 0.1-0.2 g/liter; pH = 1.9-2.1, T = 25-35C, D sub k = 7.8 A/sq. decimeters; (2) Cr sub 3 (SO sub 4) sub 3 0.4-0.5 mol/liter, Na sub 2 SO sub 4 0.75-1 mol/liter, H sub 3 BO sub 4 0.5 mol/liter, NH sub 4 F 0.2 mol/liter, glycocol 0.13-0.15 mol/liter, Fe sup 2+ 0.1 g/liter; NH sub 4 F 0.2 mol/liter, glycocol 0.13-0.15 mol/liter, Fe sup 2+ 0.1 g/liter; pH = 1.8-2.0, T = 25-30C, D sub k = 7.10 A/sq. decimeters. Orig. art. has: 3 figures.				
ASSOCIATION: None				
SUBMITTED: 17Jan62	DATE ACQ: 25Sep63	ENCL: 00		
SUB CODE: CH	NO REF Sov: 006	OTHER: 009		
2/2				
Cord				

MATANTSEV, A.I.; FALICHEVA, A.I.; KORZON, N.A.

Behavior of anodes of various materials in the ele trolysis of  
trivalent chromium sulfate solutions. Zhur. prikl. khim. 37  
no.11:2426-2431 N '64 (MIRA 18:1)

1. Sverdlovskiy institut okhrany truda Vsesoyuznogo tsentral'-  
nogo soveta professional'nykh soyuзов.

FALICHEVA, A.I.; MATANTSEV, A.I.; LAVRINOVА, A.Ye.

Buffer properties, pH value for the hydrate formation of Cr(OH)<sub>3</sub>  
and the conductivity of chromium sulfate solutions. Zhur. prikl.  
khim. 37 no.12:2600-2606 D '64.

(MIRA 18:3)

AUTHORS.

Levin, A. I., Falicheva, V. I.

•SOY 156 58-1-9/46

TITLE:

The Use of Radioactive Indicators for the Investigation of Corrosion Inhibition by an Externally Applied Current (Primeneniye radioaktivnykh indikatorov dlya issledovaniya tormozheniya korrozii nalozhennym izvne tokom)

PERIODICAL:

Nauchnyye doklady vysshey shkoly, Khimiya i khimicheskaya tekhnologiya, 1958, Nr 1, pp. 32 - 35 (USSR)

ABSTRACT:

Evidence found at present in publications on the mechanism of the inhibition mentioned in the title are insufficient for the explanation of this mechanism and they cannot be agreed to (Refs 1-5). The authors tried in the present paper to re-discuss this problem, which is of theoretical and technical importance. They proceeded from the following assumption: If the application of an external current actually inhibits any current the total result of which is the corrosion of a metal, the existence and the change of the content of the corrosion products may be determined by means of labelled atoms. For this purpose the radioactivity of the medium has to be determined in which the ionization of the metal takes place. Zn<sup>65</sup> with an half-life period of 250 days was used as radioactive isotope. Table 1

Card 1/4

The Use of Radioactive Indicators for the Investigation SOV/156 58-1-9/46  
of Corrosion Inhibition by an Externally Applied Current

shows the change of the corrosion velocity of zinc in an acid solution if the latter is polarized by the current. The corrosion velocity was in this case characterized by the quantity of the "labelled" zinc which passed over to the solution, i.e. by the radioactivity of the solution to be investigated. Table 1 shows that the corrosion was the greatest in the no-current case. The corrosion was reduced considerably with rising cathodic polarization. It is stopped completely after a certain value of the "protective" potential has been attained. A more accurate observation of the mechanism of the corrosion processes shows that they are composed of a series of subsequent stages; each of them influences the course of the total process. The application of an external direct current causes abrupt displacements in the course of the electrode reactions. They are above all expressed in the change of the concentrations and the composition of the ions in the electrolyte. This is the case above all in the vicinity of the electrodes (concentration polarization). Beside the latter a chemical polarization is produced, when current is passed through the solution. This chemical polarization is in the discussed case connected with

Card 2/4

The Use of Radioactive Indicators for the Investigation SOV/156 58-1-9/46  
of Corrosion Inhibition by an Externally Applied Current

different stages of the hydrogen ion discharge process. The hydrogen precipitation process is composed of two stages: a) a hydratized ion  $H_3O^+$  absorbs an electron; b) hydrogen atoms are transformed into molecules. The "protective" effect of the external current is not directly connected with the corrosion velocity. The mechanism of the protective current is apparently merely of an electrochemical nature. It is never connected in first place with the transformation process of the double electric layer at the boundary metal - solution. The electron excess necessary for the concerning metal and medium depends on many conditions and above all on the amount of the excessive voltage of the hydrogen and on the ion discharge velocity (of the cathodic current density). In other words the protective potential which develops at the zinc electrode in a  $H_2SO_4$  solution is the result of the compensation of the ionization reaction of the zinc atoms by the hydrogen ion discharge. There are 1 table and 10 references, 9 of which are Soviet.

Card 3/4

The Use of Radioactive Indicators for the Investigation SOV, 156 58-1-9/46  
of Corrosion Inhibition by an Externally Applied Current

ASSOCIATION: Kafedra tekhnologii elektrokhimicheskikh proizvodstv Ural'skogo  
politekhnicheskogo instituta im.S.M.Kirova (Chair of Technology  
of the Electrochemical Products of the Urals Polytechnic Institute  
Imeni S.M. Kirov)

SUBMITTED: October 11, 1957

Card 4/4

*diff*  
FALICHENOK, V.I., Cand Tech Sci--<sup>1</sup>" Study of cathode processes  
in the electric precipitation of zinc with the use of radioactive  
isotopes." Sverdlovsk, 1959. 15 pp (Min of Higher Education USSR.  
Ural Polytech Inst im S.M. Kirov. Chair of Technology of Electro-  
~~Chemical Industries~~, 150 copies (KL,27-59,121)

-43-

SOV/76-33-4-27/32

5(4)

AUTHORS:

Levin, A. I., Falicheva, V. I.

TITLE:

On the Mechanism of Retardation of Corrosion by the Application  
of an External Current and the Simultaneous Discharge of Zinc  
and Hydrogen Ions (O mekhanizme tormozheniya korrozii nalo-  
zhennym izvne tokom i sovmestnom razryade ionov tsinka i vodoroda)

PERIODICAL: Zhurnal fizicheskoy khimii, 1959, Vol 33, Nr 4, pp 930-935(USSR)

ABSTRACT:

The corrosion protection of metals by the application of an external current is ever more extending nowadays. It is assumed (Ref 8) that the hydrogen (I) which separates at the cathode simultaneously with zinc (II) does not depend on the external current. As in this case the (I) separation should be the consequence of the already separated (II), which is not very believable, investigations were carried out in this connection. If the application of an external current hinders corrosion, the change of the content of corrosion products must be determinable by the aid of radioactive isotopes, at the same time as the activity of the solution in which the zinc ionizations are observed, is determined. Zn<sup>65</sup> was used and Zn was solved in 0.5 n H<sub>2</sub>SO<sub>4</sub>. The activity of the Zn samples and H<sub>2</sub>SO<sub>4</sub>

Card 1/3

solutions was tested with an apparatus of the B type (Ref 10).

SOV/76-33-4-27/32

On the Mechanism of Retardation of Corrosion by the Application of an External Current and the Simultaneous Discharge of Zinc and Hydrogen Ions

The experiments were made in 2 n H<sub>2</sub>SO<sub>4</sub> on a corresponding apparatus (Fig), in which connection the polarization curves were plotted on a lamp potentiometer LLPU-1, following calibration by the aid of a potentiometer PPTV-1. The corrosion rate (CR) was evaluated according to the activity of the 2 n H<sub>2</sub>SO<sub>4</sub>.

The values obtained of the (CR) (Table) show that without external current the electrolytic Zn is corroded quickest. In the case of a cathode polarization with a value being more negative than  $\varphi_K = 0.853$  v a standstill of corrosion may be observed. The mechanism of "protective effect" of the current is of a pure electrochemical nature and is brought in connection with a rearrangement process of the binary electric layer at the interface metal-solution. The formation of an excess of electrons in the metallic shell of the binary layer acts as a corrosion-preventing factor and may be regarded as a kind of barrier preventing the passage of Zn-ions into the solution. The (I)-separation is a primary electrode reaction of the H<sup>+</sup>-ion discharge and not a secondary process

Card 2/3

SOV/76-33-4-27/32

On the Mechanism of Retardation of Corrosion by the Application of an External Current and the Simultaneous Discharge of Zinc and Hydrogen Ions

in consequence of a zinc dissolution. All experimental data obtained may be explained satisfactorily according to the theory of retarded ion discharge. There are 1 figure, 1 table, and 15 references, 13 of which are Soviet.

ASSOCIATION: Ural'skiy politekhnicheskiy institut im. S. M. Kirova, Sverdlovsk  
(Ural Polytechnic Institute imeni S. M. Kirov, Sverdlovsk)

SUBMITTED: October 7, 1957

Card 3/3

LEVIN, A.I.; FALICHEVA, V.I.

Investigation of cathodic processes in the electrodeposition  
of zinc by means of radioactive indicators. Izv. vys. ucheb.  
zav.; tsvet. met. 3 no.3:62-69 '60. (MIRA 14:3)

1. Ural'skiy politekhnicheskiy institut, Kafedra tekhnologii elektro-  
khimicheskikh proizvodstv.  
(Zinc--Electrometallurgy)  
(Radiosotopes--Industrial applications)

FALICKI, Zdzislaw; GALUSZKO, Pawel, KOZLOWSKI, Wojciech; SULESTROWSKI,  
Waldemar, Gdansk.

Up-to-date clinical observations on the effect of largactil in  
mental diseases; preliminary communication. Przegl.lek.Krakow 11  
no.8:232-238 1955.

1. Z Kliniki Chorob Psychicznych A.M.w Gdansku, Kierownik: prof.  
dr. Tadeusz Bilikiewics. i z II Kliniki Chorob Wewnetrznych A.M.  
w Gdansku, Kierownik: prof. dr S. Wasolaki  
(CHLOPROMAZINE, ther.use.  
ment.dis.)  
(MENTAL DISORDERS, therapy  
chlorpromazine)

FALICKI, Z.

U-5

POLAND/Pharmacology - Toxicology, Tranquillizers.

Abs Jour : Ref Zhur - Biol., No 3, 1958, 12973

Author : Falicki, Z., Galuszko, P., Sulestrowski, W.

Inst : -

Title : Psycholeptic Drugs in Psychiatry.

Orig Pub : Postery neurol, neurochirurg. i psychiatrii, 1956, 2,  
69-81.

Abstract : No abstract.

Card 1/1

FALICKI, Zdzislaw; GALUSZKO, Paweł; JAWORSKA, Irena; KIELAK, Lucyna;  
SŁOUSTROWSKI, Waldemar

Evaluation of therapeutic value of largactil according to  
observations at the clinic for mental diseases of the Academy  
of Medicine in Gdańsk. *Neur. &c. polska* 6 no.3:313-320 May-June  
56.

1. Z Klin. Chrob. Psychicznych A.M. w Gdańsk. Kier. prof. dr.  
T. Bilikiewic.  
(CHLORPROMAZINE, therapeutic use,  
ment. disord., hosp. report (Pol))  
(MENTAL DISORDERS, therapy,  
chlorpromazine, hosp. report. (Pol))

FALICKI, Zdzislaw (Klinika Chorob Psychicznych A. M. w Gdansku ul. Debinki 7,  
bud. 25)

Remarks on instructions for admission & discharge of patients from  
psychiatric hospitals. Neur. Sz. Polska 7 no. 6:1007-1011 Nov-Dec 57.

1. Z Kliniki Chorob Psychicznych A. M. w Gdansku. Kierownik: prof.  
dr. T. Bilikiewicz.

(HOSPITALS, PSYCHIATRIC  
admission & discharge of patients (Pol))

BILIKIEWICZ, Tadeusz; FALICKI, Zdzislaw

Therapy of vaginismus. Polski tygod. lek. 14 no.47:2076-2077 16 Nov.59.

1. (z Kliniki Chorob Psychicznych A. M. w Gdansku; dyrektor; prof.  
dr Tadeusz Bilikiewicz)  
(VAGINA, diss.) (PSYCHOTHERAPY)

FALICKI, Zdzislaw

Analysis of criminal acts among psychopaths and patients with  
character disorders hospitalized during 1945-1955. Neur. &c  
polska 10 no.2:261-266 Mr-Ap '60.

1. Z Kliniki Chorob Psychicznych A.M. w Gdansku Dyrektor Kliniki:  
prof. dr T.Bilikiewicz  
(PSYCHOPATHIC PERSONALITY)

FALICKI, Zdzislaw

A case of status epilepticus after largectil poisoning. Neur. &c  
polska 10 no.2:281-283 Mr-Ap '60.

l. Z Kliniki Chorob Psychicznych A.M. w Gdansku Dyrektor Kliniki:  
prof. dr T.Bilikiewicz  
(CHLORPROMAZINE toxicol)  
(EPILEPSY etiol)

FALICKI, Zdzislaw

Compensatory neuroses as a social problem. Neur. &c polska 10  
no.4: 501-509 Jl-Ag '60.

1. Z Kliniki Chorob Psychicznych Akademii Medycznej w Gdansku  
Kierownik: prof. dr T.Bilikiewicz  
(HYSTERIA jurisprudence)

DOLMIERSKI, Roman; FALICKI, Zdzislaw

Attempted use of the preparation UK 738 in cases of post-medication parkinsonism (preliminary communication). Neurol. etc., polska 11 no. 3:409-410 '61.

1. z Kliniki Chrorb Psychicznych AM w Gdansku Dyrektor Kliniki:  
prof. dr T. Bilikiewicz.  
(ATROPINE rel cpds) (MOVEMENT DISORDERS ther)

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"Sketches from the Free Markets." p. 11, (GOSPODARKA ZBOGOWA, Vol. 5,  
No. 1, Jan. 1954. Warszawa, Poland.)

SO: Monthly List of East European Accession, (EEAL), LC,  
Vol. 3, No. 12, Dec. 1954, Uncl.

FALIKOV, N. N.

USSR/Diseases of Farm Animals. Diseases Caused by R-2  
Bacteria and Fungi

Abs Jour: Ref Zhur - Biol., No 1, 1959, 2803

Author : Falikov, N. N.  
Inst : Siberian Scientific Research Veterinary Institute  
Title : Experimental Control of Brucellosis in Cattle  
and Sheep with No 19 Strain Vaccine

Orig Pub: Byul. nauchno-tekhn. inform. Sibirsk. n.-i. vet.  
in-ta, 1958, No 3, 8-9

Abstract: No abstract

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Country : USSR  
Category : Diseases of Farm Animals. Diseases Caused by  
Bacteria and Fungi  
Abo. Jour. : Ref Zhar-Biol, No 23, 1958, No 105809  
Author : Ovaynov, N. I.; Bumakov, I. G.; Svirtsova,<sup>\*</sup>  
Institut. : Siberian Scientific Research Veterinary Institute  
Title : Study of the Effectiveness of Albanycin in Para-  
typhoid and Pneumonia of Calves  
Orig. Pub. : Byul. nauchno-tekh. inform. Sibirsk. n.-i. vet.  
in-t, 1958, No 3, 24-26  
Abstract : It was shown that albanycin produces a positive  
effect only in recent cases of disease when ad-  
ministered subcutaneously in a dose of 50,000-  
70,000 units per 1 kg. of body weight, once or  
twice a day during the whole period of disease  
until clinical recovery is achieved.-- A. D.  
\* K. S. Smol'yanov, V. I. Polikarpov, B. M.

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FALIKOV, S.M.

Various aspects of the bioelectrical activity of the brain in  
middle-aged and aged subjects. Zh. vyssh. nerv. deiat. Pavlov  
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1. Elektroenzefalograficheskaya laboratoriya TSentral'noy  
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(ELECTROENCEPHALOGRAPHY) (AGING)  
(MIDDLE-AGE)

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Eksper. kir. i anest. 9 no.6:71-76 N-D '64. (MIRA 18:7)

I. Gorodskaya bol'nitsa Nr.47 (glavnnyy vrach A.A.Pavlova) i laboratoriya elektrcentsefalografi Tsentral'noy bol'nitsy (glavnnyy vrach S.A.Chesnokov) Ministerstva zdraveoekhraneniya RSFSR, Moskva.

KREYNDLER, A. [Kreindler, A.], akademik; BERGINER, V.M. [translator];  
FALIKOV, Sh.M. [translator]; SHMIDT, Ye.V., prof., red.;  
BASSIN, F.V., doktor med.nauk, red.; GABERLAND, M.I.,  
tekhn. red.

[Epilepsy; clinical and experimental studies] Epilepsiia; kli-  
nicheskie i eksperimental'nye issledovaniia. Pod red. E.V.  
Shmidta i F.V.Bassina. Moskva, Medgiz, 1960. 506 p.  
(MIRA 16:4)  
Translated from the Rumanian.

1. Chlen-korrespondent Akademii meditsinskikh nauk SSSR (for  
Shmidt). (EPILEPSY)

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(MIRA 17:6)

1. Electroencephalographic Laboratory, Central Hospital under  
R.S.F.S.R. Ministry of Public Health, and Neurological and Surgical Departments, Hospital №.47, Moscow.

SHUKHGALTER, I.A.; GEL'FAND, V.B.; FALIKOV, S.M.

Clinical aspects and surgical treatment of thyrotoxicosis  
combined with malignant exophthalmos. . Khirurgiia 39 no.9:  
46-51 S'63 (MIRA 17:3)

1. Iz khirurgicheskogo otdeleniya ( zav. I.A. Shukhgalter),  
nevrologicheskogo otdeleniya ( zav. T.K. Sochikina) gorodskoy  
bol'nitsy No.47 (glavnnyy vrach A.A. Pavlova) i laboratorii  
elektroenzefalografii ( zav. S.M. Falikov) TSentral'noy  
bol'nitsy (glavnnyy vrach P.I. Zima) Ministerstva zdravookhra-  
neniya RSFSR, Moskva.

TAYTS, N.Yu., doktor tekhn. nauk; KLEYNER, M.K., inzh.; ZAVALISHIN,  
Ye.K., inzh.; KALUGIN, Ya.P., inzh.; FALILEYEV, I.L., inzh.;  
KAGAN, N.I., inzh. [deceased]; Prinimali uchastiye: POPOV,  
V.N. inzh.; CHUYKOV, A.A., inzh.; MINUKHINA, L.N., inzh.;  
KHATSAREVICH, V.R., inzh.; TOLMACHEVA, I.A., inzh.; BAZHENOVA,  
V.N., inzh.

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Ural'skiy nauchno-issledovatel'skiy trubnyy institut i  
Chelyabinskiy truboprovodnyy zavod.

KRASOVITSKAYA, S.E. [deceased]; BLYUMENFEL'D, L.A.; SYROVATKO, F.A.;  
FALILEYEV, Yu.V.; KAN, D.V. (Moskva)

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prof. A.N. Novikov, nauchn. rukovoditel' - deystvitel'nyy chlen  
AMN SSSR zasluzh. deyat. nauki RSFSR prof. A.I. Savitskiy).  
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ZABLOTSKIY, P.F.; KALANTAROV, K.D.; LYASS, F.M.; EL'KIND, E.Yu.;  
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Method for gamma-topography (scanning) in clinical diseases of the  
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1. Iz Vsesoyuznogo nauchno-issledovatel'skogo instituta meditsinskogo  
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akad N.N. Burdenko AMN SSSR i Gosudarstvennogo onkologicheskogo  
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(THYROID GLAND--DISEASES) (AUTORADIOGRAPHY)

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M. A. Volkova) Gosudarstvennogo onkologicheskogo instituta im.  
P. A. Gertsena (dir. - prof. A. N. Novikov)

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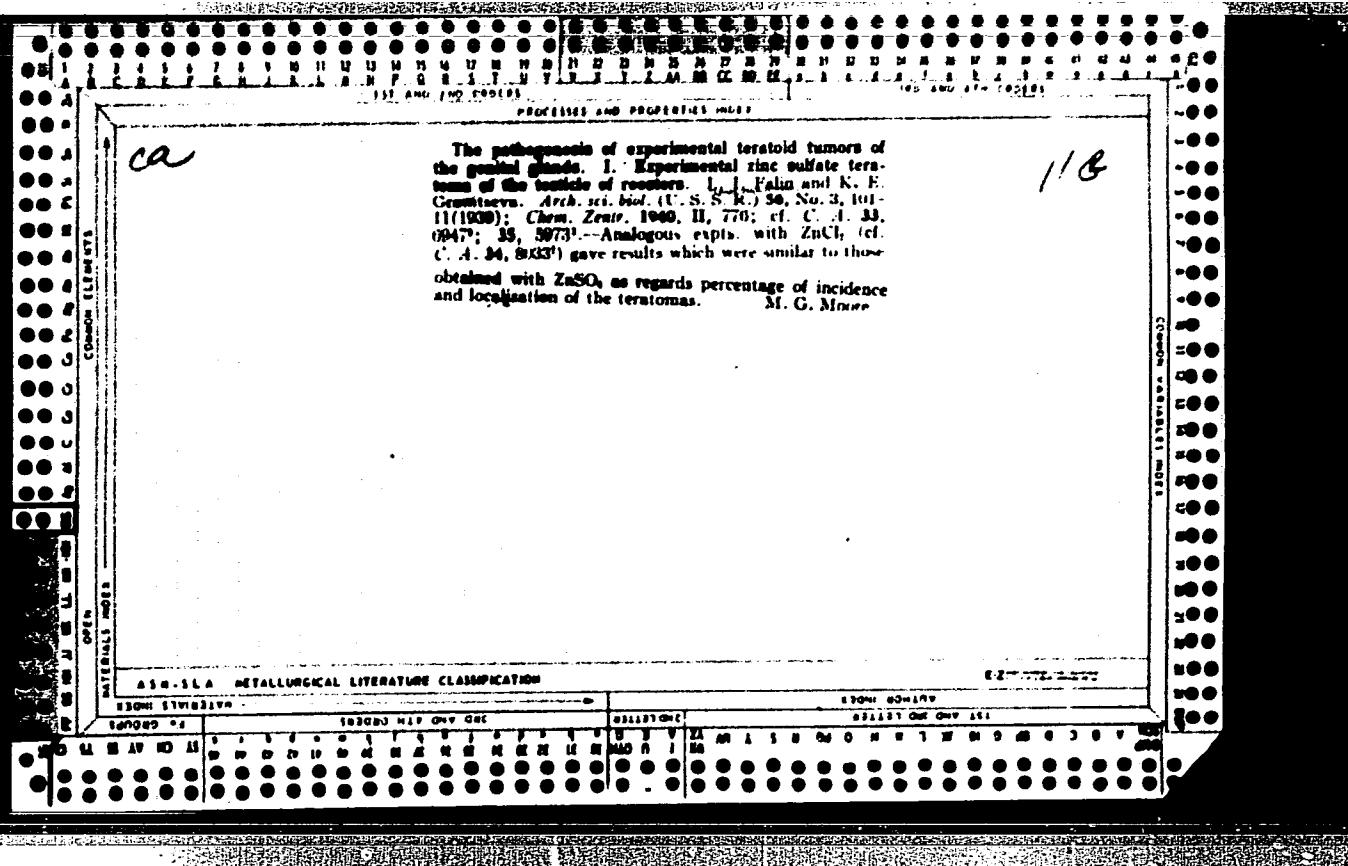
NOVIKOVA, L.A., prof.; FALIBEYEV, Yu.V.

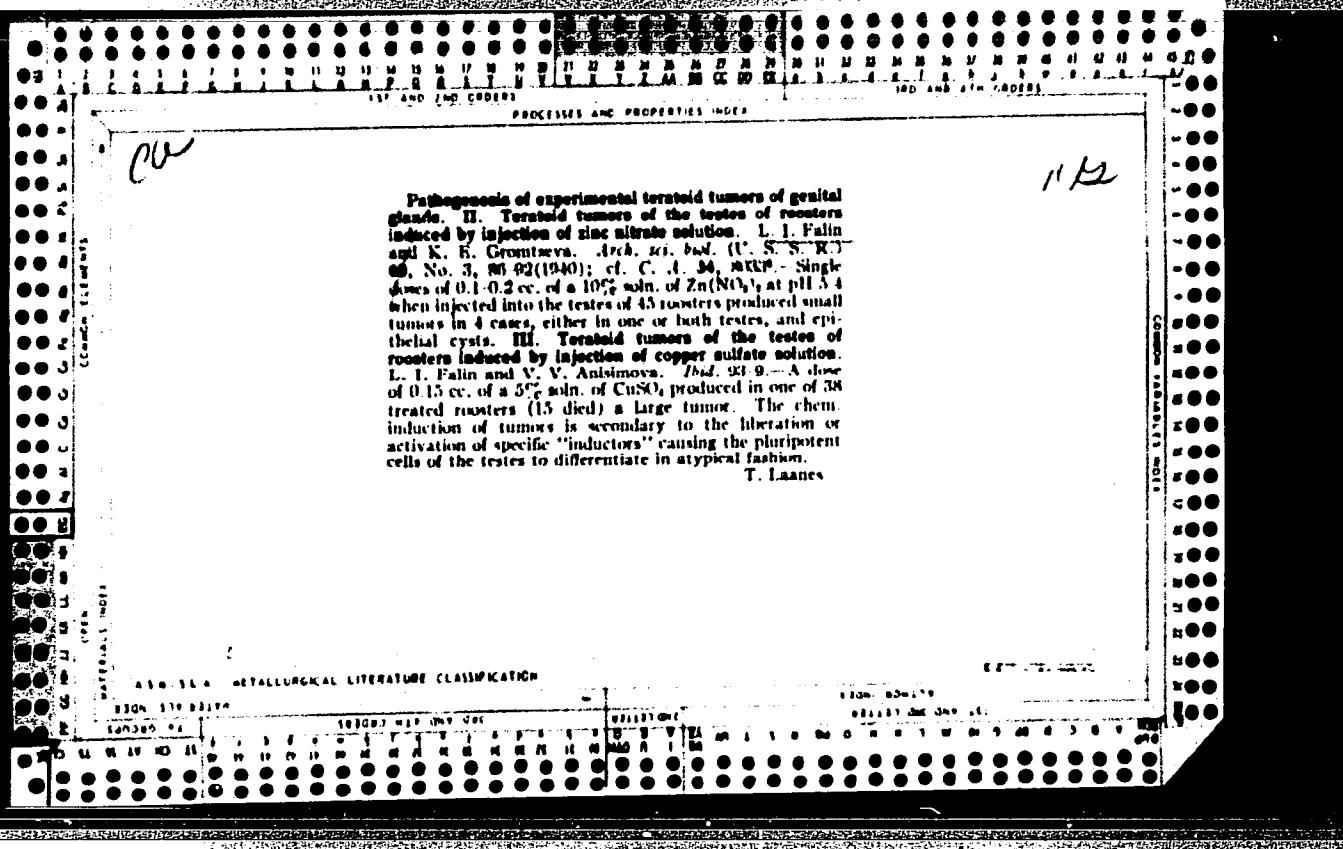
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(SAVITSKII, ALEXANDR IVANOVICH, 1887- )

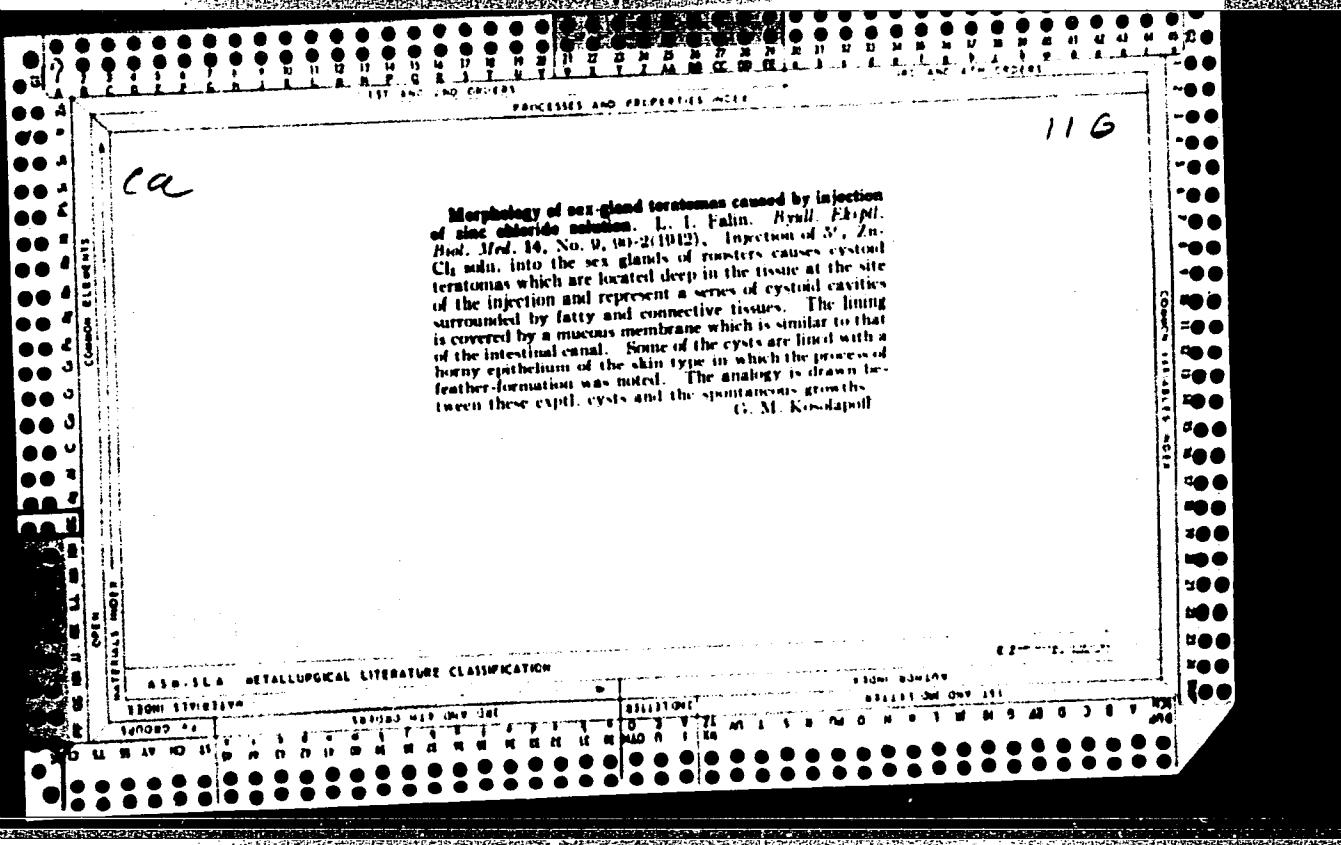
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AMN SSSR prof. A.I. Savitskiy).  
(MAXILLA - neoplasms)







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Chem Histology, Smolensk Med. Inst.

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VALIN, L. .

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